

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/017351

A. CLASSIFICATION OF SUBJECT MATTER
Int.Cl⁷ F16C11/04, F16C11/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
Int.Cl⁷ F16C11/04, F16C11/10

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Jitsuyo Shinan Koho 1922-1996 Jitsuyo Shinan Toroku Koho 1996-2005
Kokai Jitsuyo Shinan Koho 1971-2005 Toroku Jitsuyo Shinan Koho 1994-2005

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 2001-59373 A (NHK Spring Co., Ltd.), 06 March, 2001 (06.03.01), Par. Nos. [0034], [0042] to [0046], [0048] to [0049], [0052]; Figs. 3, 4, 8, 10, 12 & WO 2000/077413 A1 & EP 1203890 A1	1-4, 6
Y	JP 11-173327 A (Pureshijon Supuringu Kabushiki Kaisha), 29 June, 1999 (29.06.99), Par. Nos. [0010] to [0012] (Family: none)	1-4, 6
Y	JP 2001-185868 A (Kabushiki Kaisha Strawberry Corporation), 06 July, 2001 (06.07.01), Par. Nos. [0020] to [0031]; Fig. 3 & US 6633643 B1	1-4, 6

☒ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"&" document member of the same patent family

Date of the actual completion of the international search
15 March, 2005 (15.03.05)

Date of mailing of the international search report
29 March, 2005 (29.03.05)

Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

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PCT/JP2004/017351

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 2003-161311 A (Kabushiki Kaisha Strawberry Corporation), 06 June, 2003 (06.06.03), Par. Nos. [0030] to [0035]; Fig. 6 (Family: none)	1-4, 6
Y	JP 9-329127 A (NHK Spring Co., Ltd.), 22 December, 1997 (22.12.97), Par. Nos. [0017] to [0020]; Figs. 7 to 9 (Family: none)	1-4, 6
A	JP 10-68412 A (NHK Spring Co., Ltd.), 10 March, 1998 (10.03.98), Full text; Figs. 1 to 17 (Family: none)	1-6
A	JP 2001-107941 A (Katoh Electrical Machinery Co., Ltd.), 17 April, 2001 (17.04.01), Full text; Figs. 1 to 5 & KR 1050634 A	1-6
A	JP 2003-156029 A (Kabushiki Kaisha Osuzu), 30 May, 2003 (30.05.03), Full text; Fig. 2 (Family: none)	1-6
P, Y	JP 2004-190785 A (Kabushiki Kaisha Strawberry Corporation), 08 July, 2004 (08.07.04), Full text; Fig. 5 (Family: none)	5